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General Informational and Background Statement

DEFENSE PLANNING BY THE
U. S. DEPARTMENT OF AGRICULTURE

Defense planning is vital both as a deterrent to aggression and as a means of coping with the effects of aggression if it should occur anyway. The U. S. Department of Agriculture has major planning and, in event of actual emergency, major operational responsibilities in relation to food; defense against biological and chemical warfare in relation to livestock and crops, defense against fallout as it relates to certain areas of responsibility of USDA, and rural fire defense.

The USDA is fortunate in having numerous regular programs which can easily be converted to emergency use. Also, the extensive existing staff at both headquarters and field levels would be automatically available to carry out emergency programs.

This statement will concern itself with a brief review of the existing programs of USDA in relation to defense, authorities and organization for defense planning and the nature of defense planning.

I. Existing Programs of USDA in Relation to Defense

To administer its extensive regular programs, the USDA has about 70,000 full-time regular employees of whom 11,000 are in Washington and the balance in the field. In addition to the regular employees, there are 28,000 full-time employees in county offices under special appointments, 9,156 part-time county committeemen in 3,052 counties, and 82,335 part-time community committeemen in 27,445 communities. This represents a built-in capability for the administration of emergency programs consistent with the policy of the Federal Government, insofar as possible, to build into the existing structure and programs of government a readiness to carry out civil and defense mobilization functions.

The Secretary is assisted in his direction of activities of USDA by an Under Secretary, and Administrative Assistant Secretary, who supervises the administrative management staff services, a General Counsel, three program Assistant Secretaries, and a Director of Agricultural Credit Services. Each of the 13 major agencies of USDA reports to one of the three program Assistant Secretaries as indicated in the chart attached as Exhibit 1.

(Note: In a briefing this chart would be used as a slide)

Exhibit 2 attached summarizes the relationship of some of the major programs of these agencies to defense and some of the highlights will also be described in narrative form.

(Note: In a briefing these exhibits should be used as slides. Highlights could be described ad lib or using the following narrative).

Price support programs administered through the Commodity Stabilization Service and the Commodity Credit Corporation could be converted in an emergency to incentive programs to encourage the proper food production. Inventories accumulated as a result of price support operations represent a food resource which would be available for emergency use. In addition, experience in acquiring, managing and disposing of these stocks provides a basis for emergency supply programs. Although many of the current production adjustment programs would require modification in an emergency, they provide experience for emergency production programs.

Market news and agricultural estimates programs of the Agricultural Marketing Service provide basic data on food supplies which would be needed in an emergency. Inspection and grading programs would be useful in preventing and detecting contaminants and by providing the standardization necessary for successful administration of other emergency programs. The direct distribution and school lunch programs provide experience in distribution of foods to those in need and background for evaluation of civilian food requirements. Many of the AMS programs are carried out in cooperation with the States.

The Forest Service administers 188,000,000 acres of National Forests including protection of these areas against fire, disease, and insect infestations. Also, the Forest Service provides assistance and cooperation in the management and protection of State and private forest lands. This experience is a useful base for emergency rural fire programs and programs relating to timber production.

The Forest Service also has a forest products research capability which is being used for defense projects and can be expanded as in previous emergencies.

The production and utilization research programs of ARS might require adaptation in an emergency, but would be a useful aid to emergency production and in finding substitutes for scarce commodities. Programs of the Agricultural Research Service relating to plant and animal disease control, carried on in cooperation with States, can be adapted to defense against biological and chemical warfare and fallout hazards as they relate to animals and crops. Meat inspection would be directly useful in an emergency as a means of preventing or detecting contaminants of meat and meat products.

Loan programs of the Farmers Home Administration have a relationship to credit assistance which would be needed by farmers in an emergency. Programs of the Extension Service lend themselves to farm community counseling in an emergency. Although the programs would change, experience of the Soil Conservation Service could be utilized to good advantage in radiation detection in rural areas.

Regular contacts maintained by Foreign Agricultural Service with other countries and the State Department make it a logical contributor in cooperation with the State Department in the assembly of food requirements for foreign allies.

II. Authorities and Organization for Defense Planning

Regular programs provide the U.S. Department of Agriculture with a broad range of authority for administering essential programs in an emergency and, with the notable exceptions of priorities and allocations and requisitioning powers, special defense delegations are not actually needed.

It is useful, however, to have a written assignment covering the areas which the President and the Director of the Office of Civil and Defense Mobilization expect the USDA to cover in planning and in emergency action. As already indicated, these areas are (a) food supply functions, including allocation of the total resource, distribution through the wholesale level, procurement and production, (b) programs relating to defense against biological and chemical warfare, fallout as it affects livestock and crops (c) defense against fallout as it relates to certain areas of responsibility of USDA, and (d) programs relating to rural fire control. USDA has been working with OCDM in the preparation of an Executive order assigning certain defense functions to USDA. The order, one in a series of delegations to various agencies, will outline the framework within which authorities available would be exercised and will emphasize built-in readiness.

Organization for defense planning is designed to utilize the broad range of talent existing in the USDA. The Under Secretary is responsible for all policy determination and he is Chairman of the Defense Policy Review Committee. The Administrative Assistant Secretary is responsible for the ability of the USDA to continue to operate in an emergency and he is assisted by a Continuity Planning Committee. General coordination of defense planning within the Department is the responsibility of the Food and Materials Division of the Commodity Stabilization Service.

FMD works closely with CSS and AMS and other agencies on food matters, with ARS on matters relating to defense against biological and chemical warfare and radiological fallout and with the Forest Service on rural fire defense.

In order to further planning, use existing talent and bridge the gap between the current organization of USDA and the slightly different internal organization which would be needed in an emergency, defense planning committees or groups have been established throughout the Department. Members of these groups would have key roles in an emergency. They devote time to defense planning, as a part of their regular program assignments.

The Food and Materials Division directs the pre-emergency activities of the Department's eight full-time Regional Liaison Representatives. The RLRs are located at each of the regional offices of the OCDM. The RLR provides a channel for liaison between OCDM and USDA, develops plans for emergency operations at the regional level, coordinates and expedites planning at the State level, and provides leadership and training to the group of USDA agency representatives who assist him.

The Food and Materials Division directs the pre-emergency activities of the Department's eight full-time Regional Liaison Representatives who are headquartered at each of the regional offices of the OCDM.

The FMD also provides national coordination and immediate supervision of the USDA State Emergency Planning Committees. (The head of each USDA activity in the State receives his technical program direction through the normal agency chain of command.)

III. Nature of Defense Planning in USDA

A. General

1. National Plan for Civil Defense and Defense Mobilization

The Department of Agriculture has assisted in the development of the "National Plan for Civil Defense and Defense Mobilization." This Plan is a basic framework for all non-military defense planning carried on by the Federal, State and local governments. It also contains guidance for industry, including the food industry, and the public. This Plan is supported by a series of 42 annexes. The Department of Agriculture prepared basic material for the National Food Plan - Annex 31 - contributed substantially to the National Biological and Chemical Warfare Plan - Annex 24 --, the National Radiological Defense Plan - Annex 23 - and the National Fire Protection Plan - Annex 21 - and has contributed to or reviewed many of the other annexes.

2. Damage Assessment

In developing defense plans, particular but not exclusive emphasis is placed on the situation which would result from attack on the United States. The

starting point in this planning is ability to assess attack damage. The Department of Agriculture is developing continually data and methods which can be used by USDA to estimate the effects of an attack as soon as possible after the attack pattern and pertinent weather data are known. This is a difficult task because consideration must be given to radiation and radioactive fallout and chemical and biological effects, as well as direct damage resulting from blast and fire. Damage estimates made by personnel of USDA will be supplemented with respect to certain effects of attack by nuclear weapons by data from the National Damage Assessment Center. These estimates of damage will contribute to an understanding of post-attack food requirements and supplies and availability of non-food materials and manpower needed for food production, processing and distribution. They will also provide background for special radiological defense activities, biological and chemical warfare activities and the control of fires in rural areas. Damage assessment capability has been augmented by a data processing and reporting system outlined in III-B-8.

3. Planning for Continuity of Essential Functions of the U. S. Department of Agriculture in a Wartime Emergency

Planning for the continuity of Department of Agriculture operations in event of emergency is important since it provides the administrative framework for the program work.

In June 1960, USDA issued a document entitled "Defense Mobilization Planning to Assure Continuity of Essential Functions in Event of a Civil Defense Emergency." This document assigns the major defense functions of USDA to the respective agencies of the Department and it establishes the emergency organization and delegates the necessary authority to carry out the Department's civil defense and defense mobilization responsibilities.

In addition to delineating functions at national headquarters, the document outlines the responsibilities of the USDA Regional Liaison Representative (RLR) and his advisory staff during the pre-emergency planning period as well as during an actual emergency. The RLR arrangement is desirable, since USDA as a whole is not regionalized, although one agency has a regional organization. Currently the eight areas which have been established to conform with the regions established by OCDM are liaison rather than administrative areas, and will not affect the normal administrative reporting lines of the various agencies of the Department. They would become operational only in event an enemy attack made national direction impossible.

The RLR provides a liaison channel between OCDDM and USDA, develops plans for emergency operations at the regional level, coordinates and expedites planning at the State level, and provides leadership and training to the group of USDA agency representatives who assist him in planning as well as in an actual emergency.

The document also establishes a USDA State Emergency Planning Committee in each State and one to serve in Puerto Rico and the Virgin Islands. The Secretary of Agriculture has appointed Chairmen for these committees and committee members have been designated by the heads of the respective USDA agencies having important responsibilities in the State--AMS, ARS, CSS, FES, FHA, FS, and SCS. The document outlines pre-emergency defense planning responsibilities of these committees and provides for operations in a defense alert or post-attack period when the chairman of the USDA State Emergency Planning Committee becomes the USDA State Administrator.

The document also establishes a USDA County Emergency Planning Committee in each county throughout the United States which is composed of officials directing USDA programs at the county level. The document provides for defense planning in the pre-emergency period as well as during the defense alert or post-attack period when the committee becomes the USDA County Agriculture Defense Board.

Staffing for the basic emergency headquarters organization at the primary headquarters has been worked out, but is being re-examined. It should be noted that key personnel who would be active in an actual emergency are also responsible for planning in the pre-emergency period.

The headquarters relocation center for the Department, called "Repoint", has been established and partially equipped and arrangements have been made for post-attack living quarters for personnel and members of their immediate families. This site can be activated in event of strategic warning. Further preparations will be made at this site to increase its usefulness.

Work is under way which will result in the selection of emergency State offices which will serve as headquarters for the USDA State Emergency Planning Committees upon determination or declaration of a civil defense emergency.

USDA State and County Defense Operations Handbooks are being prepared which will fit into the larger USDA defense manual system.

B. Defense Planning Relating to Food and Supporting Non-Food Materials and Facilities.

As used in this discussion, the term "food" is defined broadly as it is in Executive Order 10480 to include all commodities or products capable of being consumed by humans and animals, as well as fats and oils, naval stores, tobacco, wool, mohair, cotton, hemp, and flax fiber until they lose their identity as agricultural commodities.

1. Requirements and Supply Review

The techniques for determining requirements for and availability of food following attack on the U. S. must take into account the casualties and food losses resulting from attack. The several "Operation Alert" exercises have resulted in analyses of the food situation under several different sets of assumed post-attack situations.

The main purpose of requirements and supply analyses as far as the Department of Agriculture is concerned is to determine the analytical methods to be used, the ability of the United States to supply necessary food in an emergency period, and to point out problem areas. Requirements and supply analyses help the Department to determine policies with respect to food stockpiling for defense, and the adequacy of domestic production capacity. These analyses are a basis for the standby readiness plans which must be available in event of an emergency, and they would be a useful starting point for requirements and supply evaluation necessary after the emergency begins.

Without going into detail on findings to date, a few basic points on probable availability of food supplies in the United States under emergency conditions follow:

- a. Food shortages on a nationwide basis are not likely to appear immediately after outbreak of war.
- b. It is possible that the drain of unusual wartime requirements could cause shortages in supplies of some foods should we have full mobilization without an attack on this country. This could result from increased demand for certain types of food by consumers with an increased supply of money to spend for food and from increased demand from the military and from foreign allies. Any shortage of

non-food consumer goods would intensify the likelihood of such problems. It should be noted, however, that shortages of a few types of food would not necessarily mean an inadequate total supply of food. The types of food in short supply would either go up in price or have to be rationed in order to persuade consumers to use other foods in more plentiful supply.

c. While post-attack food supplies on a per capita basis are likely to be at least equal to present rates of use for most types of food and for total food, a few kinds of food may be in relatively short supply. This would be particularly true of such imported commodities as coffee, tea and sugar, which are produced not at all or in insufficient quantities in the United States. Under attack conditions, shortages of many foods are likely to appear immediately only in those areas where transportation and production have been severely disrupted and most stocks have been destroyed. Difficulty in distributing food will probably be the major problem since the normal commercial food trade channels are likely to be disrupted and new methods of channeling food from farmers and processors to retail stores and consumers will have to be developed. These findings are subject to modification if continuing study and changing circumstances prove this to be necessary.

The food distribution problem following an attack will be materially improved if the National Plan is followed and at least a two-week supply of food is maintained in homes and apartments. Home food stock plus supplies in retail stores and wholesale stocks should then be sufficient to meet needs until it is possible to resume emergency distribution of essential amounts of food.

In addition to food requirements and supply studies relating to the continental United States under mobilization conditions, the Department is interested

in the food supply situation of friendly countries, and participates actively in work of the Food and Agricultural Planning Committee of the North Atlantic Treaty Organization and in other related surveys.

The following discussion will indicate several types of planning designed to eliminate or alleviate potential food supply problems under wartime conditions.

2. Food Stockpiles

Since studies to date indicate that supplies of domestically produced foods are likely to be adequate on a national basis following an attack, it does not appear necessary to augment such supplies with a special national food stockpile. Nevertheless, if a national shelter program is undertaken, stockpiles of non-perishable food should be stored in such shelters. Stockpiling of some imported foods may be desirable if it is anticipated that ocean shipping will be unavailable or drastically curtailed, and stockpiling in Alaska, Hawaii and some of the territories may also be justified due to their dependence on other areas and possible transportation difficulties. These are essentially the conclusions of a report on stockpiling which was prepared pursuant to the Agricultural Act of 1956 and submitted to the first session of the 85th Congress.

3. Domestic Capacity to Produce

Long-range survival under emergency conditions depends in large measure on ability to produce food in sufficient quantities. While the productive capacity of the food industries in the United States is generally adequate, certain actions are being taken now which have a direct bearing on ability to produce food and other essential agricultural products for use in an emergency. These include maintaining seed stocks of some commodities not normally produced abundantly in the U. S. and the development of techniques for rapid expansion of domestic production if the need should arise.

4. Vulnerability of Food Stocks

To assure that adequate food will be available in case of emergency, an effort is being made to protect and increase accessibility for emergency use of stocks which have been acquired by the Commodity Credit Corporation as a result of normal program operations. Under a policy approved by the Board of Directors of the Commodity Credit Corporation in February 1956, defense criteria are included among the factors to be considered in the location of CCC stocks. These criteria relate to the reduction of vulnerability, and to increasing accessibility for use in event of attack. Some stock movement to non-vulnerable locations has taken place in response to this policy.

5. Standby Plans and Orders

The Department of Agriculture has developed standby food plans and orders which could be used under emergency conditions. These include measures which would be needed in connection with damage assessment, requirements and supply evaluation, allocations, production and procurement. A notice designating the claimant agencies which will submit emergency food requirements to the Department of Agriculture has been published in the Federal Register (22 F.R. 10964). Basic standby orders, developed to cover such subjects as hoarding, setting commodities aside as an aid in procurement, priorities and requisitioning commodities, are being reviewed and will be revised. Additional plans and orders required for specific commodity and functional areas are under consideration.

The Department would be a claimant for supporting non-food materials and facilities in event of a wartime emergency, and in this connection is maintaining close working relations with the resource agencies concerned. The Department is also cooperating with Commerce, Interior and other agencies in the review of their standby plans and orders which affect the production, processing and distribution of food. Plans are being made for controlling the domestic distribution of farm equipment and commercial fertilizer in an emergency since this is a direct responsibility of the Department.

These standby plans and orders are to implement the basic action steps in Plans C and D-Minus. The Department has worked closely with the Office of Civil and Defense Mobilization in the development of a so-called "Plan C" for food which covers actions necessary in event of war without attack on the United States, and in the development of a "Plan D-Minus" for food which is concerned with actions which the Department would be prepared to take immediately in the event of attack on the United States with nuclear weapons.

The National Food Plan - Annex 31 - of the National Plan for Civil Defense and Defense Mobilization covers the major emergency food responsibilities but places emphasis on the immediate post-attack period. This plan was drafted by USDA in cooperation with OCDM and other agencies at various levels of government and was reviewed by representatives of State civil defense organizations. Under this plan, the State and local governments have program responsibility for food in retail channels and the homes, mass feeding and consumer rationing in the immediate post-attack period. The U. S. Department of Agriculture has program responsibility for food production, processing and distribution through the wholesale level. Both the Federal government and State governments would cooperate closely and rely heavily on normal commercial channels to carry out the program on the basis of pre-arranged plans.

6. Non-Food Materials and Facilities Requirements

The Department of Agriculture is primary claimant for materials for construction purposes and for machinery, equipment and supplies for food production, food processing and food distribution. It is, however, not responsible for the production of these vitally important items of non-food materials and equipment. In this connection, the Department works closely with the Department of the Interior on fuels and energy, the Office of Civil and Defense Mobilization on transportation and storage, and with the Department of Commerce on other essential items such as farm machinery, food processing machinery, containers, etc. The Department assists food processors and, on request, is prepared to assist non-food requisite producers and handlers to solve special problems that may arise.

Basic requirements and supply data are maintained currently for the non-food materials such as fertilizers, pesticides, farm machinery equipment and supplies, food processing machinery and equipment, and containers and supplies. In some cases, current data are published. For example, the Department publishes annually the "Pesticide Situation" and the "Fertilizer Situation".

Shortages of manpower, transportation, petroleum products, electric energy, timber and other non-food items could seriously impair our ability to produce and distribute food under attack conditions. It would be unnecessary, however, as a result of casualties to consumers and damage to industry to maintain the present levels of food production. An attack on this nation would require many adjustments from the present methods of food production, processing, and distribution.

The importance of requisites such as transportation, petroleum products and electric energy to food production and distribution in an emergency has been called to the attention of the agencies primarily responsible for them. In the longer range rehabilitation period it will be particularly important to have the necessary materials and equipment for repair and maintenance so as to keep the essential parts of highly mechanized food industry in operation.

We would require mechanized equipment even in a post-attack period since the trend toward mechanization of food and timber production is difficult to reverse. It would be extremely difficult even under the most critical conditions to revert to the increased use of manpower or the increased use of horses for power on the farm because manpower would be in short supply and horses are no longer obtainable in any great numbers. The only recourse is to maintain our sources of electrical power and to keep our farm machinery operative by supplying petroleum products for power and spare parts for repairs.

7. Stockpiling of Strategic and Critical Materials

The Department of Agriculture participates with the Office of Civil and Defense Mobilization and other agencies in the formulation of stockpile objectives for strategic and critical items in the National Stockpile.

In this connection, technical assistance is provided in the development of basic data for strategic agricultural commodities, most of which the United States does not produce or produces in insufficient quantities. The Department also conducts research on improved varieties, production methods for certain strategic agricultural items and substitutes for strategic and critical materials. Although agricultural in nature, many of these commodities fall outside the food category.

The Department has been instrumental in acquiring substantial quantities of strategic materials through the barter of surplus agricultural commodities owned by the Commodity Credit Corporation. In the past, strategic materials acquired in this manner were transferred to the National Stockpile, except for limited quantities which were acquired for delivery to other government agencies. However, now that National Stockpile goals are largely met, most materials are transferred to the Supplemental Stockpile pursuant to Section 206 (a) of the Agricultural Act of 1956, as amended. Materials which may be acquired by barter are designated by the President. Those to be acquired for the supplemental stockpile are designated upon recommendation of the Secretary who is, in turn, advised by the Supplemental Stockpile Advisory Committee for Barter, a committee made up of representatives of interested government agencies.

Since the beginning of the barter program, some 20 different agricultural commodities have been exchanged for a large group of strategic materials. Of the agricultural commodities, by far the largest volume was accounted for by wheat. Strategic materials acquired include asbestos, antimony metal, bauxite, beryl ore, bismuth, cadmium, chromite, industrial diamonds, high carbon ferro-chrome, ferro-chromium-silicon, ferromanganese, fluorspar, crude iodine, manganese ore, palladium, silicon carbide, and tin.

In the future, various techniques available under Public Law 480 may be used to acquire certain survival end items as well as strategic materials.

8. Continuity of Industry Program

At the request of the Office of Civil and Defense Mobilization, the Department of Agriculture analyzed the vulnerability to attack damage of major food industries in the United States. To date the analyses of about 30 industries

have been completed and submitted to the Office of Civil and Defense Mobilization. These analyses reveal that some of the industries present definite vulnerability problems. This is true, for example, of cane sugar refining, corn refining, dextran, cotton linters pulp, wheat flour, meat packing, yeast and cold storage.

As one means of solving these problems, the Department has published a guidebook called "Defense Guides for Commercial Food Facilities," which outlines the various steps which food industries should consider in reducing attack hazards and equipping themselves to continue operations even if an attack should occur. This guidebook was developed in cooperation with industry representatives and has been distributed with their help. The Department is also preparing to work directly with the food industries which present special vulnerability problems.

In the course of analyzing the various food industries, detailed data on individual food facilities and facilities which support the food industries have been assembled. The locations of important facilities in 70 critical target areas have been plotted on maps as an aid in identifying some of the major vulnerability problems.

A mechanical data processing system designed to include each firm in all of the major food industries and pertinent information concerning it has been developed. The system will be used in making pre-attack studies for use as a basis for the Department's defense food planning, in preparing post-attack damage estimates, assessing the relative vulnerability of industries, in obtaining post-attack operating capability reports from the field, and for other uses within USDA. This system also is adapted for use in test exercises to determine the status of our operational readiness concerning resource survival readiness.

9. Manpower

The Department of Agriculture develops and submits to the Department of Labor data which can be used to determine manpower needed on the farms and in food processing and distribution. These data are assembled currently and additional analyses have been made with reference to wartime conditions, both with and without attack on the United States. Under many conditions, manpower would be a limiting factor in our ability to cope with emergency situations.

Working in close cooperation with other departments and agencies, the Department participates in the development of lists of essential activities and critical occupations for use under current and wartime situations, and in the development of manpower programs which could be applied under wartime conditions.

Certain related activities are carried out under the Universal Military Training and Service Act, and the Reserve Forces Act of 1955. The Department cooperates with the Selective Service by providing production information useful in the proper classification of registrants engaged in agriculture, food processing and distribution. The Department also cooperates in the continuous screening of ready reserves. This is done by providing production and employment data on farm operators and assistants and on workers presently employed in food processing and distribution.

In addition, the Department works closely with other members of the President's committee on migratory labor in developing and coordinating activities relating to migrant agricultural workers and their families.

C. Defense Against Biological and Chemical Warfare and Radioactive Fallout in Relation to Livestock, Crops, and Other Areas of Concern to the Department of Agriculture.

The first line of defense in protecting agricultural resources from biological warfare involves animal and plant inspection and quarantine services established at all major ports of entry into the country. This protective service has been extremely successful in keeping many of the destructive foreign diseases and pests from gaining entrance.

1. Anti-Crop Biological Warfare.

Federal and State plant pest regulatory officials and other cooperating agencies have developed plans and established the organization essential for dealing with emergency outbreaks of insect pests and plant diseases. This organization, which has served effectively during normal circumstances, is adaptable to meet emergency situations which may arise in relation to biological warfare. Emergency plans and organization have been tested and found to be effective. Authority to conduct programs for control, suppression, eradication, and prevention of spread of insect pests and plant diseases has been delegated to Federal-State field organizations to act independently if they cannot communicate with national headquarters.

2. Anti-Animal Biological Warfare

State and Federal animal disease regulatory officials, representatives from veterinary colleges and diagnostic laboratories have developed plans and established an organization for dealing with emergency outbreaks of animal diseases. A State-Federal Emergency Disease Eradication Organization has been established in each State and is now on a standby basis. A test exercise demonstrated the capability of these plans and organization.

Authority has been delegated to the field organizations to operate independently if they cannot communicate with national headquarters.

Research is providing more rapid means of identifying foreign diseases of plants and animals. Research also includes development and improvement of biologics along with new techniques and materials for control and eradication. Instruction and training have been and are being given on the recognition of foreign or unusual diseases and insects through the Agricultural Research Service's special diagnostic schools, agricultural and veterinary colleges, to State and Federal regulatory officials, county agents, entomologists, and plant pathologists.

Farmers, livestock owners, county agents, practicing veterinarians, entomologists, plant pathologists, and agricultural specialists have been and are being provided information which they require to carry out their responsibilities relative to the ARS disease and insect eradication services and explaining how these services apply to the emergency program. The importance of participation and cooperation by all has been emphasized.

Sound movies in color on foreign and unusual diseases of animals, crops, and insect pests have been developed for training, instruction, and orientation purposes. These films are widely distributed and used by agricultural and veterinary colleges, professional and scientific meetings, agricultural officials, public health, civil defense, and military personnel who have interests and responsibilities in the field of biological warfare defense. Kodachrome slides showing the symptoms, pathology, means of recognition and control for a number of insects and diseases of plants and animals are also available for this purpose.

The USDA has contributed to Annex 24 of the National Plan for Civil Defense and Defense Mobilization, entitled "National Biological and Chemical Warfare Defense Plan" which has been completed.

The Department's nation-wide meat and poultry inspection services assure safety and wholesomeness and provide protection of these foods against biological, chemical and radiation hazards. Likewise, commodities owned by the Commodity Credit Corporation and the Secretary of Agriculture are subject to inspection.

3. Defense Against Radioactive Fallout

A Federal network of fixed radioactive fallout monitoring stations has been established by OCDM and the USDA has undertaken a training program to enable it to man 450 stations on the network. Completion of the training

program will provide USDA with a capability to render post-attack assistance to national, State and local civil defense authorities in determining extent of and alleviating damage from radioactive fallout in areas assigned to USDA. These areas cover agricultural lands, including forest lands; water used for agricultural purposes, agricultural commodities stored or harvestable on farms and ranches; livestock (including poultry); meat and meat products and poultry and poultry products, and agricultural commodities and products owned by CCC and USDA.

The Agricultural Research Service has administrative responsibility for the program and is sponsoring the training of USDA employees in appropriate areas. A complete training manual has been prepared and distributed.

The Agricultural Research Service is conducting research in the following areas:

- (1) The movement of radioisotopes through the soil and into the plants and the methods of reducing the uptake of these fission products in the soil by the crops.
- (2) The movement of radioisotopes from contaminated feed through the dairy animal into the milk and the possible means of altering this movement.
- (3) The decontamination of soil.
- (4) The removal of radioactivity from contaminated milk.
- (5) Development of improved foods for supplying fallout shelters.

Information on the hazards of radioactive fallout on the farm has been developed and distributed as Farmers' Bulletin No. 2107, "Defense Against Radioactive Fallout on the Farm". This publication suggests means by which the farmer can protect himself and family and his livestock from fallout and what he can do to minimize the effects and losses from radioactive material. A second publication of a more technical nature has been released. This provides guidelines to the agricultural officials and instructors in high schools and colleges on the radiation problems in rural areas that might be associated with a nuclear attack on this country. The publication is titled "Radioactive Fallout in Time of Emergency--Effects Upon Agriculture." A sound movie in color entitled "Fallout and Agriculture" is now being prepared and should be ready for showing by early fall.

Annex 23 of the National Plan for Civil Defense and Defense Mobilization, "The National Radiological Defense Plan" to which the USDA has contributed has been completed and distributed by OCDM.

The Agricultural Research Service cooperates and maintains close active liaison with the Department of Defense, Office of Civil and Defense Mobilization, Department of Health, Education and Welfare, Central Intelligence Agency, Atomic Energy Commission, and the National Research Council on their research and program activities relating to national defense.

D. Fires in Rural Areas

In carrying out its responsibility for rural fire defense, the Forest Service of the Department of Agriculture utilizes facilities of the Federal and State Extension Services, agencies of the Department of the Interior having responsibility for fire protection, and the State Forestry Services. To coordinate this work, a national committee has been formed, composed of representatives of these agencies.

This program is of vital importance to the total defense effort since the productive capacity of our farms, our pasture lands and our forests is dependent upon fully adequate fire protection.

In addition to this fundamental and primary function there are other important related needs. Shelter areas and evacuation routes for metropolitan residents will be in or through agricultural and mountain areas. Unless these areas are protected from wild fire, evacuation plans could be largely nullified. Important communication, transportation and power transmission systems cross these areas and would be greatly impeded by fires. Smoke from large fires materially interferes with civil and military air travel.

Substantial progress has been made in carrying out this program. Forty-seven States now have rural fire defense plans and national and regional plans are being developed. More must be done to develop fully patterns of interagency coordination and to assist in the training of volunteer forces.

As these plans are improved and expanded, continuous technical leadership must be provided to the States in order to capitalize upon the part-time contribution of many thousand individuals at the State and local level essential to a complete preparation job.

Research in fire effects following nuclear attack has been conducted through projects sponsored by the Department of Defense and OCDM. This work and other fire research undertaken in regular programs enable the Forest Service to contribute to technical progress in evaluating the problem of mass fire likely to follow nuclear attack and of devising measures to minimize their destructive effect.

Following leads developed in the 1954 cooperative fire research project, "OPERATION FIRESTOP", techniques and accessories for using aerial tankers for fighting fire from the air are being further developed. Work in perfecting equipment and techniques for laying long hose lines by civilian and military helicopters is being done. Some work has been done on systems for estimating potential fire damage areas and a current project is expected to provide a better technique for doing this. Advisory and technical services on rural fire problems are provided currently for government agencies.

The National Fire Protection Plan (Annex 21 of the National Plan for Civil Defense and Defense Mobilization) provides for coordinating rural and urban fire defense. An appendix to this will provide a national operating plan specifically for rural fire defense.

E. Conclusion

The Department of Agriculture administers a wide variety of programs which have a direct relationship to functions which would be needed in an emergency. This provides the Department with an organization and staff which, with a minimum of adaptation and training, could be used to carry out emergency programs.

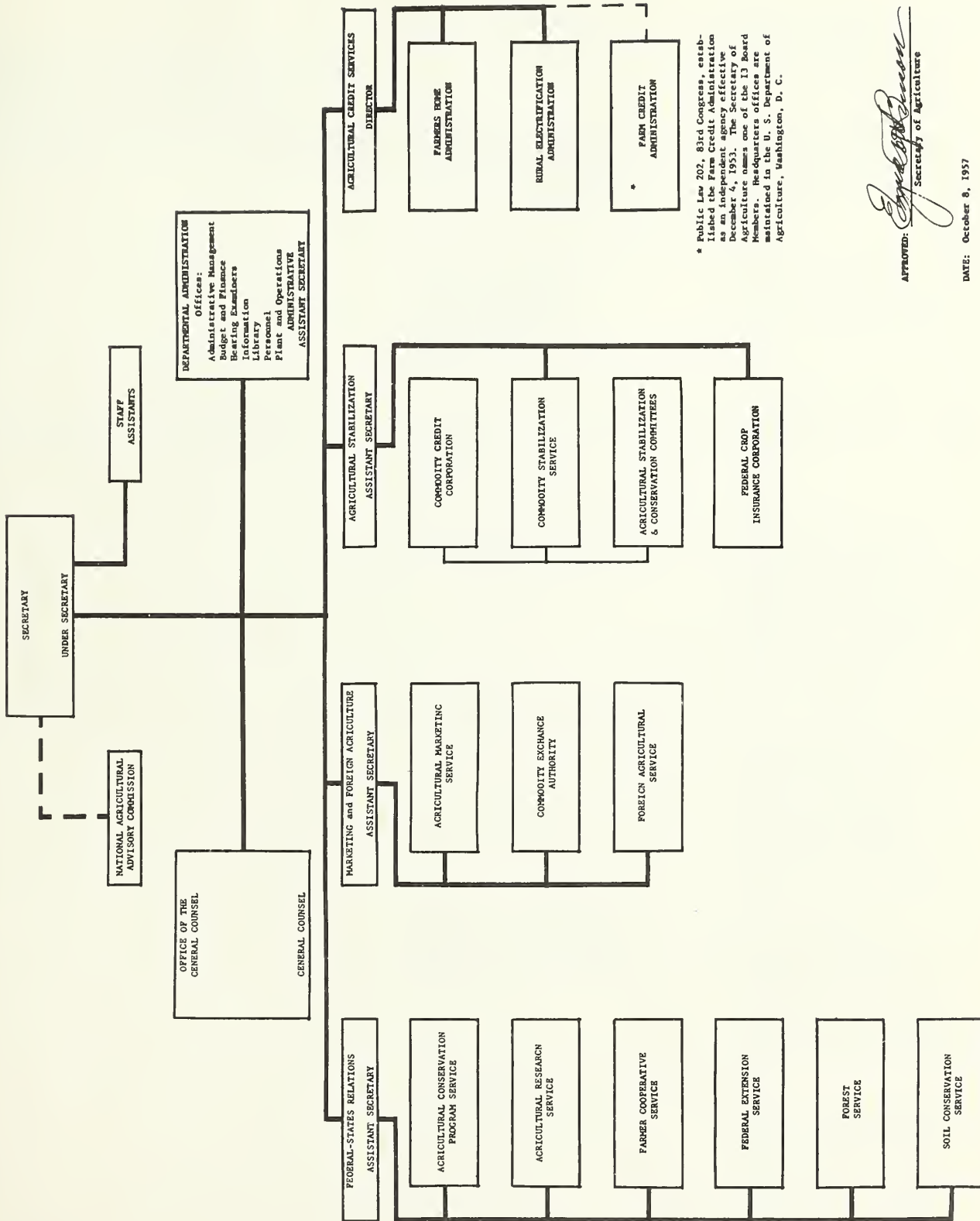
Defense planning is designed to bridge the gap between current programs and emergency programs. Defense planning in the Department is concerned with the adequacy of food in an emergency, defense against biological and chemical warfare in relation to animals and crops, defense against fallout as it relates to certain areas of responsibility of USDA, and control of fires in rural areas. A considerable amount of progress has been made in planning although much remains to be done.

Plans are tested periodically and progress is measured through a series of comprehensive exercises which are coordinated by the Office of Civil and Defense Mobilization. Each year the Department participates in the major exercise called Operation Alert.

Questions have been raised as to when the planning will be "complete". With the changing and developing weapons capabilities, complete planning is difficult. However, through our planning we intend to be as ready as possible to cope with any emergency.

Prepared by:
Food and Materials Division
Commodity Stabilization Service
United States Department of
Agriculture, in consultation
with other personnel concerned
with defense planning.

UNITED STATES DEPARTMENT OF AGRICULTURE



* Public Law 202, 83rd Congress, established the Farm Credit Administration as an independent agency effective December 4, 1953. The Secretary of Agriculture names one of the 13 Board Members. Headquarters offices are maintained in the U. S. Department of Agriculture, Washington, D. C.

APPROVED: *[Signature]*
Secretary of Agriculture

DATE: October 8, 1957

EXHIBIT 1

Some Regular Programs of a Sample of USDA Agencies and the
Relationship of these Programs to Defense

	<u>Regular Program</u>	<u>Defense Connection</u>
Commodity Stabilization Service (including Commodity Credit Corporation and Agriculture Stabilization and Conservation Committees.)	Price Support	Price incentive for production
	Acquisition, man- agement, & dispo- sition of agricultural and food commodities	Food stocks for use in an emergency Emergency supply program
	Production adjust- ment (acreage allotments marketing quotas)	Authority base for emergency pro- duction adjustment
Agricultural Marketing Service	Agricultural esti- mates Market News	Basic data for supply analysis
	Inspection & grading & standardization	Prevention & de- tection of food contamination plus standardization needed in certain other programs
	Regulatory programs	Some would be used (e.g. milk market orders which contribute to orderly and stable marketing)
	Direct distribution and school lunch	Distribution of food to those in distress or need. Civilian food re- quirements estimates
	Marketing research	Studies useful in program develop- ment, such as quantities of food in retail channels

Forest Service	Management & protection of national forests	Rural fire defense Timber production
Forest Service	Advice, assistance & cooperation in management & protection of state and private forest lands	Rural fire defense Timber production
	Forest research	Ignition & spread of fire New uses for wood and forest products to replace scarce materials
Agricultural Research Service	Farm production research	Farming methods which save scarce materials and manpower
	Utilization research	Substitutes for scarce commodities
	Regulatory programs involving control and eradication of plant & animal diseases	Defense against BW and CW & radiological fallout as they relate to animals and crops
	Meat inspection	Prevention & detection of contaminants of meat and meat products
Farmers Home Administration	Credit programs for farmers	Credit assistance for farmers in emergency
Extension Service	Information, education & demonstration (in cooperation with states)	Farm community counseling

Soil Conservation Service

Permanent national soil & water conservation measures including advice to farmers & ranchers in soil conservation districts.

Ability to analyze soil for contamination

Flood control projects

Protection of upstream supplies

Foreign Agricultural Service

Foreign market development and information on foreign agriculture and markets

Basic supply data and cooperation with State Department in development of food requirements for foreign allies

NOTE: Some of the other agencies also have responsibilities relating to defense.

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